APPENDIX A

Experimental Evidence

1. Object

An object is to prove that a minimum value (A_{min} (S)) of ultra violet absorbance spectrum at 210 to 240 nm is out of a scope of 0.5 or less, concerning polyketone fibers obtained according to disclosure in Examples of Reference-1 (JP-2002-235242), Reference-2 (JP-2001-146641), Reference-3 (EP 1116752) or Reference-4 (JP-2001-295134).

2. Spinning conditions

The spinning conditions are shown in Table-1 attached herewith.

In Table-1, the following matters should be noted.

(1) Concerning dissolving and defoaming conditions

In Experiment-1, a polymer was dissolved at 80°C in consideration of a disclosure in Example of Reference 1 that a temperature during extrusion from a spinneret is 80°C, though there is no disclosure in Example of Reference 1 regarding a temperature and time during dissolving.

In Experiment-2, a polymer was dissolved according to dissolving conditions disclosed in Reference 4, though the same solvent is used in Example 1 of References 2 and 4, and though there is no disclosure in Reference 2 regarding dissolving conditions.

In all of the Experiments, the polymer solution was defoamed so as to become possible to be spun, because there is no disclosure in References 1 to 4 regarding a dissolving step.

(2) Concerning filtering step conditions, heating step conditions and extruding step conditions

In all of the Experiments, the polymer solution was filtered, heated and extruded at a constant temperature according to Examples of the present invention in which the experiment is carried out at a constant temperature, because there is no disclosure in References 1 to 4 regarding filtering step conditions, heating step conditions and extruding step conditions.

(3) Concerning the other conditions

The production and evaluation of a polyketone fiber were carried out according to Example 1 of the present invention.

3. Results

The results are shown in Table-2 attached herewith.

4. Experimenter

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He graduated from Kanazawa University, and finished Master Course of Kanazawa University, Department of Industrial Research on March, 1989. Since April, 1989, he has been employed by Asahi Kasei Corporation and has been engaged in research section mainly into the development of a novel fiber.

Residence: 338-83, Tomiyama-cho, Nobeoka-shi, Miyazaki, JAPAN, 882-0051.

Table-1

	Experiment-1	Experiment-2	Experiment-3
	Example 1 of Reference-1	Example 1 of References-2 & 4	Example 11 of Reference-3
Solvent composition (wt. ratio)	$ZnCl_2/CaCl_2/H_2O$ =22/40/38	$ZnCl_2/NaCl/H_2O$ =65/10/25	$CaBr_2/H_2O$ =75/25
Polymer concentration (wt%)	7.5	8	10
Intrinsic viscosity [η] (dl/g)	5.6	5.6	4.1
Dissolving & defoaming conditions	80°C, 2.5 hrs	80°C, 2 hrs	90°C, 1.5 hrs
Filtering step conditions	80°C, 30 min	80°C, 30 min	90°C, 30 min
Heating step conditions	80°C, 30 min	80°C, 30 min	90°C, 30 min
Extruding step conditions	80°C, 15 min	80°C, 15 min	90°C, 15 min
S value	1.33 to 1.61	1.19 to 1.17	2.05 to 2.59
A_{min} (S)	0.57	0.70	0.66

Table-2

	Experiment-1	Experiment-2	Experiment-3
Drawing at high strain rate			
Total draw ratio	16.4	16.4	16.4
A_{min} (F)	0.60	0.78	0.69
Tensile strength (cN/dtex)	14.4	10.4	9.6
Tensile elastic modulus (cN/dtex)	310	320	250
Variation in tensile strength	0.46	0.65	0.58
Heat resistance (%) (tensile strength retention)	68	64	61
Fluff formation in twisted yarn (number/100 m)	2	12	20
Fatigue resistance (%) (tensile strength retention)	45	35	36